PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Canceled)

2. (Previously presented)   An apparatus for providing an auxiliary pilot comprising:
a first source configured to provide pilot data;
a second source configured to provide a pilot Walsh sequence, the pilot Walsh sequence comprising a concatenated sequence of a basic Walsh sequence and a complementary sequence of the basic Walsh sequence; and
a processing element configured to cover the pilot data with the pilot Walsh sequence and communicatively coupled to said first source and said second source.

3. (Previously presented)   The apparatus as claimed in claim 2 wherein the basic Walsh sequence comprises an all zeros sequence.

4. (Previously presented)   The apparatus as claimed in claim 2 wherein the basic Walsh sequence is 64 chips in length.

5. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot Walsh sequence is 128 chips in length.

6. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot Walsh sequence is 256 chips in length.

7. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot Walsh sequence is 64 times K chips in length, where K is a number of pilot Walsh sequences available.

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8. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot Walsh sequence comprises a K-bit sequence of a Walsh code mapping and wherein each bit of the K-bit sequence is substituted with a basic Walsh sequence or a complementary sequence depending on a value of the bit.

9. (Previously presented)   The apparatus as claimed in claim 8 wherein the complementary sequence is derived by inverting each bit within the basic Walsh sequence.

10. (Previously presented)   The apparatus as claimed in claim 8 wherein the complementary sequence is a second basic Walsh sequence.

11. (Previously presented)   The apparatus as claimed in claim 2 further comprising a gain element configured to adjust gain of the auxiliary pilot based on gain of a particularized transmission wherein the auxiliary pilot is transmitted and communicatively coupled to said processing element.

12. (Previously presented)   The apparatus as claimed in claim 2 wherein a length of the pilot Walsh sequence is minimal based on a number of required pilot channels.

13. (Previously presented)   The apparatus as claimed in claim 2 wherein one auxiliary pilot is provided for each particularized transmission.

14. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot data for all auxiliary pilots is identical.

15. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot data for all auxiliary pilots comprises an all ones sequence.

16. (Previously presented)   The apparatus as claimed in claim 2 wherein the pilot data for all auxiliary pilots comprises an all zeros sequence.

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17. (Previously presented)   An apparatus for receiving an auxiliary pilot, comprising:

a processing element configured to accept a pilot signal to provide pilot data;

a first accumulator configured to accumulate the pilot data over a length of a basic Walsh sequence to provide I and Q pilot values and communicatively coupled to said processing element; and

a second accumulator configured to accumulate the I and Q pilot values for a current interval and previous intervals in accordance with a pilot hypothesis and to provide a decovered pilot, and communicatively coupled to said first accumulator.

18. (Previously presented)   The apparatus as claimed in claim 17 wherein the length of the basic Walsh sequence is 64 chips.

19. (Previously presented)   The apparatus as claimed in claim 17 further comprising a comparator configured to compare the decovered pilot against a set of predetermined thresholds and communicatively coupled to said second accumulator.

20. (Currently amended)   The apparatus as claimed in claim 17 further comprising:

a comparator configured to compare the decovered pilot against a set of thresholds and communicatively coupled to said second accumulator; and

a storage element configured to add to a candidate set stored therein a particularized transmission corresponding to the decovered pilot if the decovered pilot exceeds an [[add]] added threshold and communicatively coupled with said second accumulator.

21. (Previously presented)   The apparatus as claimed in claim 20 wherein said storage element is further configured to remove from the candidate set stored therein a particularized transmission corresponding to the decovered pilot if the decovered pilot is below a drop threshold.

22. (Previously presented)   The apparatus as claimed in claim 20 wherein said storage element is further configured to add to an active set stored therein a particularized

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transmission corresponding to the decovered pilot if the decovered pilot exceeds an add threshold.

23. (Previously presented)   The apparatus as claimed in claim 20 wherein said storage element is further configured to remove from the active set stored therein a particularized transmission corresponding to the decovered pilot if the decovered pilot is below a drop threshold.

24. (Currently amended)   An apparatus for providing particularized transmissions, comprising:

a first processing element configured to cover a traffic channel of each of the particularized transmissions with a Walsh sequence, wherein each traffic channel is covered with a different Walsh sequence; and

a second processing element configured to cover pilot data for each of the particularized transmissions with ~~pilot Walsh sequences, wherein each pilot is covered with a different pilot Walsh sequence,~~ a pilot Walsh sequence, wherein the pilot Walsh sequence comprises a concatenated sequence of a basic Walsh sequence, the second processing element being communicatively coupled to the first processing element.

25. (Canceled)

26. (Currently amended)   The apparatus as claimed in ~~claim 25~~ claim 24 wherein the basic Walsh sequence is Walsh sequence zero.

27. (Currently amended)   An apparatus for providing improved performance in a particularized transmission, comprising:

a first processing element configured to cover traffic channel of the particularized transmission with a Walsh sequence orthogonal to Walsh sequences of surrounding transmissions; and

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a second processing element configured to cover pilot data of the particularized transmission with a pilot Walsh sequence having a concatenated sequence of a basic Walsh sequence, the pilot Walsh sequence being orthogonal to pilot Walsh sequences covering pilot data of the surrounding transmissions and communicatively coupled to the first processing element.

28. (Canceled)

29. (Currently amended)   The apparatus as claimed in ~~claim 28~~ claim 27 wherein the basic Walsh sequence is Walsh sequence zero.

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